

Read Before You Lease!!

A Commercial Landlord and Tenant's Guide

A guide to Basic Building Code Requirements
For Tenant Improvement Projects

Provided by

The City of Las Vegas

Department of Building and Safety

333 N. Rancho Drive

Las Vegas, NV 89106

Phone: (702) 229-6251

www.lasvegasnevada.gov

Preface

This pamphlet is provided as a guide to explain many of the basic minimum requirements of the International Building Codes for small and medium commercial lease spaces (about 500 sf to 4,000 sf). Its purpose is to provide a basic explanation of how the codes work and how they may affect the build-out or remodel of a commercial tenant space. It is organized into chapters of several general topics that landlords and tenants most commonly express interest in, along with the most frequently asked questions regarding these topics. Its intent is not to be a designer's manual that delves into the intricacies of the code requirements, but rather is a primer to aid the average layman to understand what may be required of them when starting up a business in a newly leased space.

Getting Started

When deciding to start your own business, it may seem a daunting task to put together a business plan by working through your finances, thinking ahead and planning for payrolls and hiring, setting up the books and accounting, obtaining a loan, obtaining the necessary business licenses and securing insurance protection. It may seem that, just as you think you have thought through everything, yet another unforeseen obstacle pops up ahead of you. One of the most devastating of these obstacles may be start-up under-capitalization resulting from exceeding your construction budget, which was necessitated to meet the minimum building code requirements for your space. It can really be a deal changer, or even breaker. Yet all too often, this is exactly what occurs.

Thus, it is so important to insure that you have *all* of your bases covered, especially regarding this latter issue, to insure you can start your business under the best possible circumstances.

The Building Codes

So just what are the building codes and why are they important? First, they are a *minimum* “best practices” approach to insuring that when the public enters your business, their safety, health, usability, accessibility and comfort are reasonably assured. The codes are the very *minimum* standards for laying out a floor plan and constructing a project. They are the *basis* for design, not an afterthought by the design professional. The codes have been developed over many years by thousands of concerned professionals: engineers, builders, developers, psychologists and medical, fire, life-safety and emergency rescue personnel who have invested incredible amounts of time studying issues that require intelligent mitigation. Issues from which regulations stem may be originated from common sense “every-day” usage and applications, observances of human nature over time or wrought from a single catastrophic event (MGM Grand Fire; 9-11-2001 World Trade Center).

The codes are consensus documents that go through continuous scrutiny over the course of their development and enforcement. Code proposals are developed, presented in open public hearings, discussed and re-discussed and voted upon several times by the governing body made up of these code professionals, the International Code Council. In many instances it takes a two thirds majority by the voting body for the code proposals to move forward. Federal, state and local governments have deemed

the development and organization of these *best practices* so important, that they adopt them into their laws, to insure that there is consistency in understating and enforcement. Local building, planning and fire departments are the ones empowered with the task of implementing these laws. When adopted as law, they must be enforced as such, just as a police officer is bound by oath to enforce the criminal and traffic laws of the state.

General

Q. Who can present a code proposal or change to the building codes?

A. Any person that wants to commit the time and energy can propose a new building code provision or suggest a change to an existing building code. Proposals are compiled by the International Code Council and reviewed every three years. The proponent must be present at the code development and final action hearings to be able to explain the reason for the suggested code proposal.

Q. Can I get a copy of the local building codes?

A. Yes, they are available for purchase at some college bookstores, on-line through the International Code Council at www.iccsafe.org, or from local building departments. These books are not public domain, so there is a charge for them and they can be expensive. Most local public libraries have copies of at least some of the codes, though they may not be the most currently adopted code of the municipality.

Q. What are the currently adopted building codes that my space must conform to?

A. All jurisdictions within Clark County are under the following building codes:

- The 2009 International Building Codes with local amendments.
- The 2009 International Fire Code with local amendments.
- The 2009 International Energy Conservation Code with local amendments.
- The 2009 Uniform Plumbing Code with local amendments
- The 2009 Uniform Mechanical Code with local amendments
- The 2008 National Electrical Code with local amendments
- The 2003 ICC/ANSI 117.1 Accessible and Usable Buildings and Facilities Code

Q. Where can I get a copy of the local amending ordinances for these codes?

A. Copies of these ordinances may be obtained at the local jurisdiction building department or obtained on line at www.snicc.org by clicking on the SNBO icon in the left margin and then clicking on local codes and ordinances.

Q. If I have questions regarding the building code requirements, who can I contact to get the correct answers?

A. You may contact the local building department staff to asked questions. All plans technicians, plans examiners and code officials are certified experts in the codes. You may also ask a building inspector, a licensed architect or a general contractor to get answers to most of your questions.

Planning

Q. I will be moving into an older existing building that has been in commercial use for 40 years. Will I be required to bring the building up to all current codes?

A. The answer depends on what you will be using the building for, whether it is already heated and cooled and what materials the building is constructed of. The International Existing Building Code only requires those portions of the building or space that are being added to, altered or changed to meet the current code requirements, *BUT*, if you are changing the use or occupancy of the building or space, at least all current fire-life safety provisions of the current code must be met for the new type of use. Please note that the use and occupancy of building in this context is as defined by the Building Codes and does not often coincide with common notions of use and occupancy and therefore you should contact your local building department to determine the proposed use and occupancy.

Q. Regarding the question above, so if I am taking an old warehouse and am going to completely remodel the interior and part of the exterior to turn it into a bar/restaurant, what will I have to bring up to code?

A. Practically everything, except the exterior building walls and roof commonly referred to as the building shell, though some additional structural life-safety requirements may need to be needed. (See the Energy Code section for additional considerations.) A shell building is the main structural elements of a building consisting of basically 4 exterior walls, floors and roof along with basic building service equipment, wiring and plumbing which typically are not ready to be occupied.

Q. Why do I have to have plans drawn for my project?

A. Per state law, plans “approved” by the local building department are the legal recorded document for the project. The plans must demonstrate all the work that is to be done, all the materials to be used and the final permanent layout and use of all spaces within the project. It must demonstrate that the space that is to be improved is safe for the general public and employees to occupy and use, by complying with all applicable requirements of the building codes. In existing buildings the improvement of such is typically referred to as a TI or “Tenant Improvement” space.

Q. Once I pass final inspections and move in, can I make changes to the TI space without getting another permit.

A. Again, the plans are the legal document for how the space was approved for safety and usability. Changes to the movable display shelving, movable counters, desks and cubicles may be done without permits, if exit aisles and wheel chair accessibility is still maintained. But, if you are wishing to move permanently affixed walls, electrical wiring or lighting or plumbing fixtures, new plans and permits would most likely be required.

Q. Money is very tight. Can I draw my own plans and/or perform my own construction work in my new space?

A. No. Because of the experience and expertise necessary in preparing plans and performing code compliant construction work, state and local laws allow only state licensed design professionals--professionally trained and licensed architects, civil engineers or licensed general contractors--to prepare commercial building plans, oversee and perform construction of commercial projects.

Q. Who would I have to hire to prepare my plans?

A. Only state licensed architects, civil engineers or licensed general contractors can prepare commercial building plans and oversee the design of commercial projects as the principal design professionals. In certain instances, floor layout plans for some small projects may be designed by a state licensed interior designer. State licensed mechanical engineers, electrical engineers, state and local licensed plumbers, electricians and HVAC (heating, ventilating and air-conditioning) contractors may also prepare plans for their respective trades under coordination and direction from the principal design professionals listed above.

Q. Who has to do the construction work for my project?

A. All commercial construction work on the project must be performed by state and local licensed, insured and bonded general contractors and their licensed sub-contractors.

Q. So I am not allowed to do any work at all on my project?

A. You are encouraged to actively participate on the design of your space with one of the licensed professionals listed above. Only licensed general contractors and their licensed sub-contractors can do permanent construction work on a space.

Under direction of the general contractor, you as the tenant may move in furniture, do light decorative or cosmetic work, such as wall papering, decorating or painting, and may hang pictures, shades etc. You may set up movable fixtures, set up portable displays, tables and chairs and display cases.

Q. Why do I have to have inspections for my project?

A. Again, federal and local laws require the construction to be done according to the local building department "approved" building plan. Inspectors are experts in construction techniques and industry "best practices" methods of construction, as well as knowledgeable code professionals. They must visit the site as work progresses to insure that the project is constructed in a code compliant manner and that the project is being constructed per the approved building plan. Inspections ensure basic building code compliance which, as stated above, provide a minimum "best practices" approach to insuring that when the public enters your business, their safety, health, usability, accessibility and comfort are reasonably assured.

Q. Can I make changes to my space as it is being constructed if I don't like how something is turning out?

A. If you wish to make changes to the project after the plans are issued as "approved", the design professional must make revisions to the plans and re-submit them to the building department for approval. No changes can be performed in the field until the plan change is re-approved by the department plans examiner. Some changes are necessary, but be aware that frequent changes can be very costly and time consuming, and may slow the progress of your project and delay your opening.

Q. I have a very small project that I don't think will require any work at all to the space I've leased. A friend told me I should just ask the building department for a Non-Work C of O (Certificate of Occupancy). Is that easy to do?

A. The city no longer issues non-work C of O's. The owner of the property will now hold all C of O's, not the TI lease holder. No business may occupy a space until the space has been approved for a current C of O. When you apply for your required business license, you will undergo a required inspection visit from the fire inspector for your district. He will determine if the business floor plan, as it exists, will need

additional scrutiny or required work. If additional work is not required, the fire inspector will report this to the business license division for issuance of the license. The Certificate of Occupancy for your space will remain with the landlord. If further work is required, then plans and permits from the building department will be required. Occupancy will be delayed until all required work is completed and approved and a new certificate of occupancy issued.

Q. I am in a hurry to occupy my space and get started in business. Can my contractor start work before the building permit is issued?

A. No work may be performed until the building permit is issued. If it is discovered that work was being performed prior to obtaining a permit, the contractor will be fined the same amount as for the permit fee when it is issued (double permit fees). If you suggested that he start this work, he will most likely pass this expense on to you.

Q. Is there a way to expedite the permit process?

A. Yes, the city building department has several expedited permit processes to choose from:

- **Over the Counter Permits-** If it is a very small project, with very little work being planned, and only one or two skilled disciplines affected, we have an “over-the-counter” plan review and permitting process. The applicant obtains his queue ticket, reviews the plans with the permit tech for completeness per the counter review check list. If all information is there and the plans meet all aspects of the codes, then a permit is issued immediately. This service does not cost the permit applicant any additional money, and work can commence that day. If the plans are not complete and ready for a permit, the plans will be marked for correction, returned to the applicant and a correction letter provided for the design professional responsible for the plan to use to make the corrections and a latter resubmittal.
- **Expedited Plan Review—** A department permit tech reviews the permit application and package for completeness per the check list. If it appears that the complete plan review, which includes all disciplines, can be completed in 2 to 5 hours, then it may be approved eligible for the Expedited program per a permits supervisor. If this is desired, the project will be given “head of the list” priority status and the plan will be reviewed within several working days. The cost of this program is \$200 per hour for the plan reviews and permitting time, in addition to the standard permit fees.
- **Express Plan Review—** The Express Plan Review Program is invaluable for large projects requiring all trade disciplines, public works, zoning and fire department reviews. The applicant requests a time-certain plan review from the plans technicians. The tech sets the appointment date on the calendar and all project design professionals, the contractor and the owner or his representative must be present for the review. All trade discipline plans examiners attend and review the plans. If plans are approvable, the plans are stamped, processed and permitted, normally within 24 hours. If the plans are not approvable, the first review has been completed correction letters detailing the needed changes are prepared and provided the same day as the review. The design professionals use this information to complete the needed corrections and resubmittal. The express plan review may also be utilized for the second review. The cost of this program is \$500 for the appointment and \$600 per hour for all time spent for the review to be completed.

Life Safety

The main purpose for all fire-life safety code requirements is to enable the occupants to escape the building as quickly, orderly and safely as possible in the event of a life-threatening incident. Therefore, these provisions of the code are most vital. They are based on the use of the space, the degree of combustibility of material used to build the structure and the number of occupants that will be present during full operation. Obviously, some uses create denser occupant loads or are more dangerous uses than others. For example, a business office is less dangerous than a fireworks factory. An insurance office will generate less occupant loading than a night club with drinking and dancing. Therefore the code has stricter requirements for night clubs than insurance offices. There are set formulas for calculating the *design occupant loading* of a space based on its intended uses and amount of square footage. These formulas are based studies for these types of uses over an extensive period of time. Other factors that determine the safety of occupants are the materials used in the construction of the building and if fire alarms or sprinklers were installed. The building code official has the ultimate responsibility to the general public in determining the *design occupant loading* of a space and his determination is final.

Q. I am intending to open a karate studio that will only have 15 students at a time. Once every 6 weeks or so, we will have testing for belt awards, where parents and relatives are invited. Can I base my occupant load on the instructor and 15 students?

A. No, the design occupant load must be based on how many persons you will have at the testing ceremony. The life safety code requires the calculation to be based on the maximum occupants that will be present in the space, regardless of how often this may occur.

Q. I am looking at a long, narrow space for my business office. At present, it only has the front door for an entrance-exit. Based on my occupant load, I should only need one exit. Isn't this correct?

A. Not necessarily. The intent of the code is to exit all occupants out as quickly as possible in the unfortunate event of a catastrophe. Therefore, the distance an occupant might have to travel to reach an exit, called the *exit access travel distance* or the *common path of egress travel*, may become a concern. If occupants have to travel too far to have a safe exit, a second exit may be required.

Q. I am considering locating my congregation in a storefront retail center until we can raise enough money to building our church building. Besides the number of exits, is there anything else I should know?

A. Yes. When higher risk assembly type uses are placed in a strip shopping center with other tenant types of uses, fire barrier walls may be required between the assembly uses and the surrounding neighbors, to protect the uses from one another and to allow the more numerous occupants of the assembly spaces more time to exit the building in case of an emergency.

Q. Sprinkler systems are very expensive. Would I ever be required to put in a sprinkler system if the space isn't sprinklered now?

A. Yes, possibly. Depending on the use of the space and the number of occupants, a sprinkler system may be required. For example, if you were looking at a non-sprinklered building to put in a bar and restaurant and the design occupant load exceeds 99 persons, a full sprinkler system would be required.

If you are looking to lease an office-warehouse space to start a church and the design occupant load is greater than 299 persons, the building would have to be sprinklered. Please note this is the code design occupant load and not the number of parishioners in a church, the normal amount bar patrons in the lounge or customers able to access a tanning table in a tanning salon, etc. The design occupant load and the number of participants your business plan is anticipating may be two completely different numbers and the design load will prevail.

Q. I am interested in an existing two story space to develop a business office. It has an open stairway to the second floor and two exit doors on the first floor. I will only have about 25 persons for a total occupant load. Would I need to do any more work to the space?

A. Yes, generally two exits are required from the second floor, depending on the design occupant loading of the second floor and the travel distance from the farthest point on the second floor to the first floor exit doors. Depending on if the building is sprinklered, these stairways may be required to be constructed as fire-rated exit enclosures (separated from the rest of the space) and lead directly to the exterior of the building.

Q. I found a shell space that is perfect for my proposed retail area in front, with a large stock room in back. It has two doors: the main entrance door in front and a door going out the back. Is that enough exit doors for my space?

A. Probably not. The code requires that all aisles that access required exit doors remain clear and open at all times. For that reason, an exit path must be protected to all exits. The code specifically states that required exit doors may not be accessed through kitchens, bathrooms, storage rooms, stock rooms or similar spaces. Because storage spaces are likely to have boxes or merchandise handling equipment blocking exit paths, the exits must be placed such that the occupants do not have to travel through the store rooms to reach the rear door. Usually an exit corridor is required to be built from the back of the retail store area through the stock room to the rear second required exit doorway in order to protect the path. (also see ACCESSIBILITY below).

Restroom and Plumbing Fixtures

Though not a fire-life safety item, restroom fixtures are a health and comfort issue for the public, and are therefore mandated by the code. Because of the cost of putting in an additional restroom, this is probably the number one “deal breaker” that was mentioned in the first section of this pamphlet. Unless you are proposing retail occupancy, separate male and female restrooms are required for each space with a design occupant load of 15 or more occupants. This includes all occupants, both employees and customers. (In the designated older downtown re-development area, this amount may be adjusted by the building official based on the use and occupancy). A retail store requires separate male and female restrooms if there is a combination of 50 or more employees and customers. Again, these are the same design occupant loads used to calculate code exiting requirements discussed previously, by considering use and area based on the code's mathematical probability formula.

Be aware that the number of restrooms and fixtures increases depending on additional occupant loads per the formulas listed in the building and plumbing code tables.

Q. I found a space in a strip shopping center to establish my church. It presently has two restrooms. Shouldn't that be enough for my congregation?

A. It depends on the total design occupant load of the space. The calculation tables in Chapter 29 of the building code require an additional restroom fixture for each 75 men and 75 women. The table requires any fraction of a fixture to be rounded up to the next whole fixture. Therefore, if you had a design occupant load of 200 persons, the code states that 100 of them would be men and 100 women. $100 / 75$ occupants per fixture would equal 1.25 toilet fixtures. Therefore, each sex would require two toilets.

Q. I have a fairly large space that I will be using for office and warehouse storage. By design occupant load calculation, I have 18 occupants. In reality, I will only have three or four people occupying this space at one time. Is there anything I can do to avoid installing a second restroom that I will not need?

A. The design occupant load normally governs. In some very rare instances, the head of the building department of the jurisdiction, the Building Official, can *reasonably* adjust the occupant load for the space, depending on the additional proof and documentation he may require from you. In no case will the cost of the additional restroom be a mitigating factor.

Q. Do all restrooms have to meet ADA accessibility requirements?

A. All new restrooms must meet full ADA requirements. If a restroom is existing, and no new work is being done within the restroom, then it normally is not required to be brought up to federal accessibility standards.

Q. I don't want to pay for additional costs to upgrade my space to meet federal accessibility standards. Therefore, I should make sure I don't move or remodel existing fixtures or features within the restrooms.

A. Keep in mind that federal law does have a catch-up provision that requires the owner to spend up to an additional 20% above the cost of the planned remodeling or renovation per the contract to improve the space to meet the most recent accessibility standards. For example, if you have several existing non-ADA compliant restrooms and you were not planning on spending any money on them, and the cost of your TI remodel contract is \$100,000, then you could be responsible for spending an additional \$20,000 to upgrade the existing non-compliant restrooms.

Q. I am planning a suite of offices for my consulting business. I want to have a private restroom, directly off of my office that only I will use. It can only be accessed from inside my personal office. Do I have to meet ADA requirements for this restroom?

A. Though you do not have to install the accessible fixtures themselves at the time of your remodel, you will still have to meet the accessible clear floor spaces required as if the fixtures were installed. You, therefore, do not have to install the 19" high toilet, but you must have a 60" wheel chair turning radius within the restroom and at least 60" of clear floor space measured from the wall where the grab bar would be installed later, out to the nearest edge of the sink or vanity. You do not have to install the grab bars, but the blocking for the installation of the grab bars must be installed in the wall, for quick installation later. If you want a shower stall in this restroom, the shower stall itself does not need to be the accessible type, but the clear floor wheel chair space in front of the stall must be provided now.

Q. Do I need to install a drinking fountain in my TI space?

A. The code requires at least one drinking fountain in the space. Keep in mind that when a drinking fountain is to be provided, it must be a dual drinking fountain that provides access not only to able bodied

persons, but disabled persons as well. This is a dual fountain with high and low fixtures meeting ADA requirements. If your TI space is in a building with multiple tenants and common drinking fountains are provided in the public access area, then this would suffice.

Q. Our TI space has a break room with a kitchenette and a sink for employees. Would this not suffice for a drinking fountain since employees can access it to obtain drinking water?

A. No. The valley wide amending ordinance requires a dual drinking fountain. Depending on the design occupant load, the ordinance allows the use of a commercial bottled water dispenser to be substituted for additional required fountains, if required, as long as it meets ANSI requirements for access and manipulation.

Q. Do I need a janitor's mop sink for my TI space?

A. Normally, a mop sink is required. If a common area janitor's closet and mop sink are provided by the center's owner for all tenants at all times for their common use, then this would suffice to meet the requirements.

Accessibility

Federal Americans with Disabilities Act requires all public buildings, fixtures and facilities meet accessibility standards for the disabled. This law is based on the 1964 Civil Rights Act, insuring no one is discriminated against due to race, religion, gender, sexual orientation or physical disabilities. If you are a retailer, each separate cash wrap counter in your space must have at least one section that is accessible for a person in a wheelchair. If you have public restrooms, at least one fixture in each restroom must meet accessibility standards. If you are providing a bar with seating in a tavern, at least 5% of the seating space at the bar must be accessible. If you provide a sales or service window, it must meet wheelchair accessibility standards. If you are establishing a church or theater, the altar, stage or lecture platform must be made wheelchair accessible. In other words, if you are providing a fixture, feature or amenity that an able bodied person can access, it must also be made accessible for a person with disabilities. You cannot discriminate between able bodied individuals and disabled individuals. Equal access is the law.

Q. I am planning to open a lounge/tavern business in a strip center. I will have two separate bars that customers can sit at and watch the game or play video poker. Can I provide an accessible space at just one of the bars to accommodate a disabled patron at that space?

A. No. if an able bodied person is provided with an amenity at each location, then the same amenity must be provided for a disabled person at each location.

Q. I am leasing a small 2 story building for my investment financial services company. I will only have 2 offices on an 1100 sf second floor. Do I have to install an elevator to provide accessibility to a disabled person?

A. The law *does* allow an exception for second floor spaces of less than 3000 sf, if the same attention can be given to the disabled person on the first floor. Therefore, though desirable, the elevator would not be required.

Q. I want to install a restroom on the second floor of the above space. Does it have to meet accessibility requirements?

A. No. If the second floor is not required to be accessible, then the restroom on the second floor does not have to meet accessible requirements, BUT, the occupant load of the first floor will then govern the amount of restrooms required on the first floor and all restrooms on the first floor must be accessible.

Q. I am putting in a coffee bar/cyber cafe adjacent to a pedestrian mall. I will install a service/order window directly out onto the mall for pedestrian sales. I will also have an interior coffee bar and tables for customers in the interior of the space. Do I have to meet accessibility requirements at the service window if a disabled person can order and purchase their coffee from a server at an interior table or bar?

A. Yes. Each point of sale or service that is provided for an able bodied person must also be provided for the disabled. Therefore, the service window, the interior bar and at least 5% of the tables, starting with the 1st one, must be made accessible.

Energy Code

Development and implementation of the energy code was mandated by the federal government as a matter of national security. It is required to substantially lessen our dependence on foreign fossil fuel resources and to counteract the effects of global warming. The applicable provisions of this code must be met whenever there is an alteration to the walls, windows, doors and roofs separating heated/cooled space from the outside air. This combined group of exterior building components is also known in code terms as the *building thermal envelope*. For new buildings or complete additions to existing buildings, the new building or spaces must meet all applicable requirements. For existing buildings, only the building components being altered must be upgraded to meet the current energy code requirements.

The DOE has provided a free on-line calculator to aid in meeting the design requirements of this code. It is called COMcheck and may be accessed by visiting www.energycodes.gov.

Q. We have recently rented two existing side-by-side TI spaces that were previously used as heated and cooled retail spaces. We plan on converting these spaces to a bar and restaurant. Do we have to add to the existing insulation in the attic and tear off the exterior wall drywall to add thicker insulation to meet the current code, just because we are changing occupancy types?

A. Not necessarily. Though initiating any energy upgrades will most likely have a very quick payback regarding your operating expenses, only the exterior building components that you are changing or altering must comply with the latest code requirements. All other components that you are not touching may remain unchanged.

Q. I am in the process of remodeling my existing retail TI space. We want to add storefront windows and an additional entry door to the space. Everything else will remain the same. How do I comply with the energy code?

A. First, of all the exterior building components, windows are by far the least energy efficient. The absolute very best windows that you can buy will be less energy efficient than the worst standard walls that you could build by code. Therefore, if you are removing portions of the building walls, the most energy efficient component, and replacing them with the least energy efficient components, you will be increasing your energy usage. The energy code limits the window opening in the building envelope to not

more than 40% of the gross exterior walls of the entire building. So a quick calculation must be performed to insure that the added window areas do not take you over that threshold. If you are under the 40% limit, then you may proceed to the prescriptive performance table for windows in the code. This table lists the minimum performance standard characteristics that your new windows and doors must meet. (Windows in the building code are typically referred to as “glazing”). Your local glazing contractor can provide you with the windows that will meet or exceed these prescribed characteristics. There is one other requirement to consider. If the new exterior door opens into a room or area that is greater than 3000 square feet, a vestibule would be required in addition to the door.

Q. We have found an older building that is part existing office space and the large remainder is unconditioned warehouse space. We want to add additional office area in part of the old warehouse and heat the rest of the warehouse. What would be required comply with the energy code?

A. Whenever you are adding or changing existing unconditioned space to conditioned space, all building components surrounding the new heated area must meet the minimum current energy code requirements as if it were a new building.

Q. In the above example, if we were to build the conditioned offices inside the existing warehouse and leave the rest of the warehouse unconditioned, what must we do to comply?

A. Again, all of the new building components separating the heated office from the unheated warehouse space shall comply with the code as if it was being added to the outside of the building. The existing warehouse could remain unchanged.

Q. What would be the best way to meet compliance with the above examples?

A. There are two methods for meeting compliance. First and easiest would be to use the prescriptive method for all applicable components surrounding the newly conditioned space, by insulating the applicable components per the prescriptive table in the code. . The second approach is the whole building weighted average insulation method, which allows trade-offs for efficiency values. This method should only be attempted by an experienced design professional.

Q. We want to expand or remodel our retail space into the back warehouse. We are also going to widen our front main entry door into the retail floor. What should we be concerned with?

A. Besides meeting the exterior building component requirements for the new walls and ceiling separating the new conditioned sales floor from the remaining unconditioned warehouse space (again using the prescriptive method), you will most likely be required to install a vestibule at the renovated main front door. If the main front door of your space opens into a space that inter-links with another space which together, have a combined area of over 3000 contiguous square feet, (without doors or walls separating the connected spaces), then a vestibule would be required.

Q. We intend to lease a space on Fremont Street for a deli and want to remove the existing storefront window and door and install a roll-up door that we can keep open to the outside promenade for quick access to customers. Will there be a problem with us doing that?

A. The energy code requires the “doors” in the exterior walls to be normally closed and provided with seals. Therefore, the storefront removal would not normally be allowed. Recently, the building departments in town have allowed air-curtains, (high speed electric fan cylinders installed over exterior openings that blow downward to create a strong current or "curtain" of air that effectively separates indoor conditioned air from the outside air), approved by the building department, to be installed above the entire

window and door openings that are intended to be left open during normal times of operation. Also, be aware that, businesses preparing and/or serving food must have all openings protected by fly-fans, (same principle as air curtains only less powerful), per the county health district. The air curtains could comply with the fly fan requirements, though many fly fans do not meet the more stringent requirements for air curtains.

Q. In the above question, what if we will have a service/order/drive-thru window for a fast food shop?

A. The energy code does not address drive through windows. Check the county health district for their requirements.

Q. We currently have an auto repair garage business. In order to provide for more comfort for our mechanics, we want to install several swamp coolers on the roof for summer cooling, and a gas fired forced air unit in the corner of the garage for winter heating. The garage bay doors are opened and closed frequently. Would we have to do other upgrades to the building in order to install the above?

A. The energy code exempts spaces that require 1.0 watt/sf or less or 3.4 Btu/hr X sf to heat or cool the space, regardless of use. In each of these cases, the energy required to accomplish what you are intending would most probably exceed these limits. Therefore, the garage space must meet all the applicable requirements as for a new conditioned space.

Q. We want to have outdoor dining/ seating at our restaurant. We want to install electric radiant heating above the seating areas. Can we do this and not have to close the patio in and insulate?

A. First, be aware that permanently installed electric resistance heating units are not allowed by state law (in counties of over 400,000 population). You may install gas fired radiant heaters, as long as you have each heater equipped with an individual occupancy sensor or time switch that the diners or servers can set.

Q. Can we use portable propane fired heaters for the patio?

A. Yes, though propane is very expensive, the code does not govern portable space heaters.

Q. We will be leasing a large office area in an older existing office building. We will be moving some cubicles around and relocating the lighting over these spaces. Do we need comply with the interior lighting efficiencies section of the energy code for this work?

A. No, if all you are doing is moving the lighting around. If you add any additional lighting in addition to the existing lights, then the entire space would need to comply with a lighting budget calculation. In addition, if your project entails moving existing lighting into new enclosed offices, the switching requirements for light reduction controls must be met.

Q. We are remodeling an existing space to start up a restaurant. Since the health department always requires more lighting in the kitchen to meet health standards, are we exempt from the interior lighting power requirements of the energy code for these types of areas?

A. No. The energy code provides a generous allowance for lighting in restaurants, based on the entire area of the space. This over-all power allowance takes into account the increased amount of lighting that will be required in the kitchen/food prep areas. Therefore, you should be able to meet the requirements of the energy code by correctly allocating the proper amount of lighting wattage where it is most needed.

Plumbing and Mechanical

In general, when renting a new TI space, the mechanical and plumbing systems are already installed. On occasion, a new/additional water heater may need to be installed or ducts will have to be rearranged or extended, depending on the new layout of the space. Of course there are several occupancy types that require extensive new plumbing and mechanical systems. Beauty and barber shops, dog grooming shops, day spas, medical and vet clinics, health and fitness centers, bars, restaurants and lounges and cafes will all require additional plumbing and mechanical equipment, regardless of what was in the space before. Some of this equipment can be quite expensive to purchase and install. In addition, each new plumbing fixture will require commercial sewer connection fees, that run from \$900 to \$2600 per new fixture added. It would be wise to work closely with the contractor or design professional to insure you get what you need, but no more than you will use.

Air quality is a serious health and safety concern not only for the public, but also the employees that are exposed to dangerous levels of fumes and aromatic compounds that some people can have severe reactions to. Therefore, the mechanical aspects of hair, nail and beauty salons, as well as barber shops and dog grooming establishments, etc., will require additional mechanical equipment that provide high rates of exhaust and temperature recovery with the same volume of outside air to replace the air being exhausted.

Q. I am leasing a space for a yogurt shop in a strip retail center. Since I will not be cooking any food items that will create grease, aren't we exempt from installing a grease interceptor?

A. Be aware that all food handling establishments are required to have a grease interceptor installed downstream from a 3-compartment sink. The fact that you are not grilling or frying meat to create grease is not at issue. Any food handling area that serves yogurt, slices fruit, slices bread or washes pots, pans and pizza trays that any type of food was prepped or served on will require a grease interceptor.

Q. We will rent a space in lower down town to install a coffee bar. There is no room outside of the building to install a grease interceptor. What will we have to do?

A. In some rare instances, when required evidence is provided to the building official, he may allow the installation of an interior grease catchment device. This problem should be brought to the building official early in the planning stage of the project. The department in some instances may consider the use of an alternative means or method of construction to address these types of issues, however, this is not always possible.

Q. We are installing a burger bar in a strip shopping center. What type of special mechanical equipment will be required?

A. Any food preparation establishment that has a commercial stove, griddle, grill or fryer that creates grease/oil vapors, will require a fan driven fire suppression type (Type I) exhaust hood installed directly over the equipment and the exhaust grease duct housed in a fire proof shaft liner. In addition, an air intake fan must be installed in the kitchen to make up the air that is being sucked out by the fume hood.

Q. We have rented a space in a shopping mall to start a 6 chair hair and nail salon. Is there any special equipment we will need?

A. Yes, all beauty and hair salons are required to have special exhaust ventilation systems that eliminate the health hazards created by the soaps and chemicals normally used in these types of establishments.

Q. Regarding the previous question, the space was formerly a yogurt shop. What else should we do to insure we pay no more than required for our permit?

A. Call the building department for a sewer investigation inspection prior to any work being done to the space, in order to count the existing plumbing fixtures previously paid for. This inspection fee is minimal and could save you thousands of dollars in unnecessary sewer connection fee charges.